

AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Currently Amended) An attachment device adapted for use with a tension link, the tension link including a tension link head and shaft, the device comprising:
a shank having first and second ends,
said first end having a securing mechanism, and
said second end devoid of threads and comprising at least a wall defined by a hollow core, a first expansion slot disposed on said wall, and a central aperture, wherein said wall includes a curved exterior surface, wherein said second end is deformable to accommodate the insertion of the tension link head through the central aperture and into said hollow core, and wherein the tension link head is retained within said hollow core after insertion therein.
2. (Original) An attachment device as in claim 1, further comprising a second expansion slot.
3. (Original) An attachment device as in claim 2, wherein said second expansion slot is located substantially diametrically opposite to said first expansion slot.
4. Cancelled.
5. (Original) An attachment device as in claim 1, wherein said securing mechanism comprises screw threads.
6. (Currently Amended) An attachment device as in claim 1, wherein ~~at least a portion of the second end of said attachment device~~ the curved exterior surface has a shape selected from the group consisting of: spherical, semi-spherical, aspherical, and truncated cone shape.

7. (Currently Amended) An attachment device as in claim 1, wherein said attachment device receivingly accepts a connector, said connector comprising a head receptacle that at least partially surrounds said second end and ~~limits deformation of said second end upon securing when said connector to is seated on said attachment device, said head receptacle having a curved surface for engaging the curved exterior surface of the second end when the connector is seated on the attachment device, wherein when the tension link head is inserted in the hollow core and the connector is seated on the attachment device, said head receptacle limits the deformation of the second end when a tensile force is applied through the tension link, thereby securing the tension link head within the hollow core, said tensile force operating to secure the connector to the attachment device.~~

8. (Previously Presented) A method of installing a surgical implant assembly, comprising the steps of:

(a) securing an attachment device to human bone, said attachment device having a shank with first and second ends, said second end having a wall defined by a hollow core, a central aperture, and an expansion slot disposed on said wall through said second end to said hollow core;

(b) inserting a tension link including a proximal end having a tension link head and a distal end having threads, into said attachment device by expanding said second end of said attachment device and placing said tension link head within said hollow core such that said distal end of said tension link extends through said central aperture;

(c) seating a connector onto at least a portion of said second end of said attachment device, wherein said distal end of said tension link extends through a tension link cavity in said connector;

(d) inserting an implant component through an aperture in said connector; and

(e) securing said connector to said attachment device, and said implant component to said connector by threading and tightening a link nut onto said distal end of said tension link.

9. (Original) The method as claimed in claim 8, wherein said connector includes a head receptacle to receive said at least a portion of said second end of said attachment device during said seating step, said head receptacle acting to partially confine said second end of said attachment device and limit expanding of said second end after said securing step.

10-15 (Cancelled)

16. (Currently Amended) A surgical implant assembly, comprising:
an attachment device having first and second ends, said second end comprising an enlarged area including a wall defined by a hollow core, a central aperture contiguous with said hollow core, and at least one expansion slot disposed on said wall, wherein said wall includes a curved exterior surface;

a tension link having a proximal end and a distal end, said proximal end having a tension link head and said distal end including means for securing, said tension link head insertable into said hollow core through said central aperture by deforming said enlarged area using said expansion slot, the tension link head thereby retained within said hollow core; and

a connector having a head receptacle with and a tension link cavity, said head receptacle having a curved surface for engaging the curved exterior surface of the second end when the connector is seated on the attachment device, wherein when the tension link head is inserted in the hollow core and the connector is seated on the attachment device, said head receptacle limits the deformation of the second end when a tensile force is applied through the tension link, thereby securing the tension link head within the hollow core, said tensile force being applied by the securing means and operating to secure the connector to the attachment device; said receptacle secured to said attachment device by said securing means.

17. (Previously Presented) The surgical implant assembly as claimed in Claim 16, wherein said means for securing comprises a link nut threaded onto said distal end of said tension link.

18. (Previously Presented) The surgical implant assembly as claimed in Claim 16, further comprising at least a second expansion slot.

19. (Previously Presented) The surgical implant assembly as claimed in Claim 18, wherein said second expansion slot is positioned substantially diametrically opposite said at least one expansion slot.

20. (Previously Presented) The surgical implant assembly as claimed in Claim 16, wherein said second end is devoid of threads.

21. (Previously Presented) The surgical implant assembly as claimed in Claim 16, wherein said first end of said attachment device comprises screw threads.

22. (Currently Amended) An attachment device adapted for use with a tension link, the tension link including a tension link head and shaft, the device comprising:

a single integral piece comprising a shank having first and second ends, said first end having a securing mechanism, and said second end including an enlarged area devoid of threads and including a wall defined by a hollow core and ~~an~~ a curved exterior surface, said second end further comprising a central aperture within said wall wherein a portion of said wall circumscribes said central aperture and retains the tension link head within said hollow core after insertion therein, said central aperture contiguous with said hollow core, said central aperture located at the top of said second end and substantially aligned with said shank, said central aperture sized to accommodate the shaft of the tension link, said second end further comprising a means for deforming, wherein said

second end can receive the tension link head upon expanding the second end using the means for deforming.

23. (Previously Presented) The attachment device as claimed in Claim 22, wherein said means for deforming comprises at least one expansion slot.

24. (Previously Presented) The attachment device as claimed in Claim 22, wherein said means for deforming comprises at least two expansion slots.

25. (Previously Presented) The attachment device as claimed in Claim 22, wherein said means for deforming comprises two substantially diametrically opposite expansion slots.

26. (Previously Presented) The attachment device as claimed in Claim 22, wherein said securing mechanism comprises screw threads.

27. (Previously Presented) The attachment device as claimed in Claim 22, wherein at least a portion of the second end of said attachment device has a shape selected from the group consisting of: spherical, semi-spherical, aspherical, and truncated cone shape.

28. (Previously Presented) The attachment device as claimed in Claim 22, wherein said exterior surface is sized to be at least partially encompassed by a connector.

29. (New) The attachment device as claimed in Claim 7, wherein said connector further comprises a gap provided in association with an implant component aperture, wherein when an implant component is inserted in said implant component aperture, said tension additionally operates to close said gap to thereby secure said implant component in said implant component aperture.

30. (New) The method as claimed in Claim 8, wherein during step (e), tightening the link nut causes a closing of a gap, the closing of the gap causing the implant component to be secured within the aperture.

31. (New) The attachment device as claimed in Claim 16, wherein said connector further comprises a gap provided in association with an implant component aperture, wherein when an implant component is inserted in said implant component aperture, said tension additionally operates to close said gap to thereby secure said implant component in said implant component aperture.

32. (New) A surgical implant assembly, comprising:
an attachment device having first and second ends, said second end comprising an enlarged area including a wall defined by a hollow core, a central aperture contiguous with said hollow core, wherein said wall includes a curved exterior surface;

a tension link having a proximal end and a distal end, said proximal end having a tension link head and said distal end including means for securing, said tension link head insertable into said hollow core;

an implant component; and

a connector having a head receptacle provided in association with a tension link cavity, and an implant component aperture provided in association with a gap, said implant component aperture operable to receive the implant component, said head receptacle having a curved surface for engaging the curved exterior surface of the second end when the connector is seated on the attachment device, wherein when the tension link head is inserted in the hollow core and the connector is seated on the attachment device, a tensile force applied by the securing means operates to secure the connector to the attachment device, and wherein said tension also operates to close said gap to thereby secure the implant component within the implant component aperture.

33. (New) The surgical implant assembly as claimed in Claim 32, wherein said means for securing comprises a link nut threaded onto said distal end of said tension link.

34. (New) The surgical implant assembly of Claim 32, wherein said second end of said attachment device includes an expansion slot disposed on said wall and is deformable to accommodate the insertion of the tension link head through the central aperture and into said hollow core, and wherein the tension link head is retained within said hollow core by an engagement between the head receptacle and the curved exterior surface of the second end, the engagement occurring when the tension link head is inserted in the hollow core and the connector is seated on the attachment device, wherein said engagement is maintained by a tensile force applied by the securing mechanism through the tension link, and operates to limit the deformation of the second end when thereby securing the tension link head within the hollow core.

35. (New) The surgical implant assembly as claimed in Claim 34, further comprising at least a second expansion slot.

36. (New) The surgical implant assembly as claimed in Claim 36, wherein said second expansion slot is positioned substantially diametrically opposite said at least one expansion slot.

37. (New) The surgical implant assembly as claimed in Claim 32, wherein said attachment device includes entry channel operable to receive said tension link.

38. (New) The surgical implant assembly as claimed in Claim 37, wherein said attachment device includes a tension link slot.

39. (New) The surgical implant assembly as claimed in Claim 32, wherein said second end is devoid of threads.

40. (New) The surgical implant assembly as claimed in Claim 32, wherein said first end of said attachment device comprises screw threads.

41. (New) A bone attachment device adapted for receiving a tension link head of a tension link, comprising:

a single integral piece comprising a shank having first and second ends, said first end having a securing mechanism, and said second end being devoid of threads and including a means for deforming, wherein said second end can receive the tension link head upon expanding the second end using the means for deforming.

42. (New) The bone attachment device as claimed in Claim 41, wherein said means for deforming comprises at least one expansion slot.

43. (New) The bone attachment device as claimed in Claim 41, wherein said means for deforming comprises at least two expansion slots.

44. (New) The bone attachment device as claimed in Claim 41, wherein said means for deforming comprises two substantially diametrically opposite expansion slots.

45. (New) The bone attachment device as claimed in Claim 41, wherein said securing mechanism comprises screw threads.